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User's Guide to the (ncar ai) Artificial Intelligence Technical Library

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Navy Center for Applied Research in Artificial Intelligence Information Technology Division

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Technical Library is a			
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USER'S GUIDE TO THE (NCAR AI) ARTIFICIAL INTELLIGENCE TECHNICAL LIBRARY

1. ABOUT THE LIBRARY

1.1 Introduction

The Navy Center for Applied Research in Artificial Intelligence (NCARAI) Technical Library is a collection dedicated to the field of artificial intelligence research. The Library began service in 1984 as a result of recommendations by the Joint Directors of Laboratories that an artificial intelligence technical library be established at the Center, which is part of the Information Technology Division of the Naval Research Laboratory. The library is funded by NCARAI and is managed by a full-time librarian.

Currently, the Library collection includes:

- 6,000 books
- 4,000 technical reports
- 2,500 Defense Technical Information Center (DTIC) reports
- AI-Bowker microfiche (1986-1989)
- 125 current journal subscriptions
- ONR and NRL reports
- IBM and MacIntosh Software

1.2 Users

NRL civilian and military employees may use the Library and its on-line services. NRL-based contractors, postdoctoral appointees, and other Department of Defense (DoD) personnel may use the Library with prior approval from the librarian.

1.3 Location

Library

Naval Research Laboratory Building 256, Room 227 4555 Overlook Avenue SW Washington, D.C. 20375-5000

Although a part of NRL, building 256 is located on Bolling AFB, by the south gate.

1.4 Hours

Monday through Friday, 7:00 a.m. - 3:30 p.m.

1.5 Point of Contact

Cathy Wiley, Librarian

202-767-0018 202-767-3172 (FAX) wiley@aic.nrl.navy.mil

2. SERVICES AVAILABLE

2.1 Circulating and Reference Collection

2.1.1 Books

The NCARAI library maintains an extensive collection of Artificial Intelligence books. The acquisition of material for the facility is based on the Center's current research which lies in the following fields:

Machine Learning

- Knowledge acquisition
- Knowledge representations
- Learning methods
- Cognitive information processing

Natural Language Processing

- Syntactic and semantic analysis
- Natural language interfaces to databases and expert systems
- Knowledge representation techniques
- Parser evaluation

Intelligent Decision Aids

- Reasoning under uncertainty
- Innovative inferencing techniques
- Intelligent tutoring systems
- Verification and validation of knowledge based systems

Intelligent Systems

- Automated knowledge acquisition
- Model-based reasoning
- Sensor-based systems
- Computer vision
- Robotic software techniques

Books and reference materials are cataloged and arranged by the Library of Congress (LC) classification system. Also available is a card catalog arranged in title order. Books are generally loaned for one month, and new acquisitions for two weeks.

2.1.2 Technical Reports

The reports in this section are associated with Artificial Intelligence research funded by DoD and performed by government agencies, universities, and private contractors located around the world. Included in this collection are publications documenting research performed by NCARAI personnel.

In addition, hard copies of presentation materials from guest speakers in NCARAI's ongoing seminar series are available for photocopying.

ONR reports and bound copies of NRL technical reports and NRL memorandum reports are also available.

2.1.3 Journals

The Library subscribes to more than 125 periodicals which are filed alphabetically in easily accessible, labeled boxes. See Section 3. PERIODICAL HOLDINGS for a listing of subscriptions and the period for which back issues are retained.

2.1.4 Microfiche

The Library has many DTIC reports on microfiche dating back to the 1960's and AI-Bowker microfiche of articles on microfiche listed in Bowker's AI Abstract (a monthly periodical). A microfiche reader/printer is available to the user.

2.2 Microcomputer Software

The Library's collection of microcomputer software includes a wide variety of both MacIntosh and IBM products for use at NCARAI. Currently, the NCARAI library is not licensed for lending software. However, the NCARAI librarian works cooperatively with NRL's Ruth H. Hooker Research Library and Technical Information Center, which houses a specialized microcomputer software inventory available for evaluation. More information on the Microcomputer Software Support Center can be obtained by calling (202) 404-7148.

2.3 On-Line Search and Retrieval

The Library uses two on-line systems to retrieve and process information about technical reports, books, and professional literature.

The On-line Computer Library Center (OCLC) is a national, cooperative bibliographic center. Access to OCLC enables the librarian to catalog and search for books, periodicals, technical reports, and software.

DIALOG is a commercial retrieval system that allows users to have customized bibliographies constructed from more than 400 open-literature databases, with strategies devised by the librarian and the user.

In addition, an in-house bibliographic search system is available using a UNIX database named aichibs. Aichibs is a listing of the Library's collection of books. Users access this database through Sun workstations using the command srchbib followed by a keyword. At the user's option, a listing of keyword matches is displayed on the screen or is redirected to a file. See the librarian for a demonstration.

Alternatively, aicbibs has been redesigned in ACIUSTM 4th Dimension, allowing the user to search the Library's collection on a MacIntosh computer. This database allows the user to search the collection using menu search strategies or boolean techniques; wildcards are permitted when searching. Other features available are print out capability, an on-line help facility, and a circulation system that allows users to check out books with a unique 4-digit personal identification number (PIN). See the librarian for a demonstration.

3. PERIODICAL HOLDINGS

The following is a listing of the current periodical holdings of the Library and the number of years back issues are retained. [*=Journals retained for longer periods at the Ruth H. Hooker Research Library and Technical Information Center. Articles from these can be obtained within 24 hours.]

TITLE	RETENTION (years)
ACM, Journal of the*	4
ACM Sigart Newsletter	4
ACM Computing Surveys	4
ACM Transactions on Office Info Systems	2
AI Expert	5
AI Magazine*	10
AI Trends	2
Artificial Intelligence*	20
Aviation Week and Space Technology*	2
Automated Reasoning, Journal of	5
Behavioral and Brain Sciences	12
Brain and Languages	8
Byte*	5
CALICO	2

TITLE	RETENTION (years)
Cognition	6
Cognitive Linguistics	2
Cognitive Science*	10
Communications of the ACM*	20
Complex Systems	2
Computational Intelligence	3
Computational Linguistics	2
Computer (IEEE)*	6
Computer Design*	1
Computer Graphics World*	1
Computer (IEEE)*	6
Computer Journal*	5
Computer Speech and Language	2
Computer Vision, Graphics and Image Processing*	2
Computer World	1
Computing Reviews*	10
Connect	2
Data and Knowledge Engineering	5
Defense Electronics	2
Defense News	1
Defense Science*	1
Defense Week	2
Design News	1
Digital Review	1
Distributed Computing	2

TITLE	RETENTION	(years)
EDN: Electronic Technology for Engineers and* Engineering Managers	1	
Educational Computing Research, Journal of	2	
Electronic Products	1	
Expert Systems, The International Journal of Knowledge Engineering	3	
Expert Systems With Applications	2	
Federal Computer Week	1	
FGCS(Future Generation Computer Systems)	5	
Fuzzy Sets and Systems*	4	
Government Computer News*	1	
IEEE Control Systems*	2	
IEEE Expert	3	
IEEE Networks	2	
IEEE Spectrum*	5	
IEEE Transactions on Computer*	10	
IEEE Transactions on Information Theory*	5	
IEEE Transactions on Knowledge and Data Engineering	2	
IEEE Transactions on Networking	2	
IEEE Transactions on Pattern Analysis and* Machine Intelligence	10	
IEEE Transactions on Robotics and Automation	5	
IEEE Transactions on Software Engineering*	10	
International Journal of Approximate Reasoning	2	
International Journal of Artificial Intelligence Engineering	3	
International Journal of Computer Vision	2	

TITLE	RETENTION (years)
International Journal Expert Systems with Applications (Pergamon)	3
International Journal of Expert Systems Research & Applications	2
International Journal of Intelligent Systems	2
International Journal of Man-Machine Systems	10
International Journal of Robotics Research	3
ISR, Intelligent Systems Report (formerly AI Week)	2
John Hopkins Technical Digest*	2
Journal of Cognitive Neuroscience	3
Journal of Logic Programming	4
Journal of Mathematical Psychology*	3
Journal of Parallel and Distributed Computing	6
Journal of Robotics Systems*	3
LAN(Local Area Networks)	2
Language	5
Language Acquisition: A Journal of Developmental Linguistics	2
Language Technology	2
Library Journal	1
Linguistics and Education	2
Linguistic Inquiry	5
Linguistics and Philosophy	2
Linguistics and Language Behavior Abstracts	2
LISP and Symbolic Computation	2
LSA (Linguistic Society of America) Bulletin	2
Machine Learning	5

TITLE	RETENTION	(years)
Machine Translations (formerly Computers and Translations)	2	
MacUser	1	
MacWeek	1	
MacWorld	1	
Modern Office Technology	1	
Natural Language & Linguistics Theory	4	
Network World	1	
Neural Networks	4	
Neural Networks Review	2	
New Generation Computing	5	
OCLC Micro	1	
One-Person Library	2	
Operations Research*	6	
Optical Memory News	2	
ORSA, Journal on Computing*	3	
PC Week	1	
Proceedings of the US Naval Institute*	8	
Publish	1	
Robotica, International Journal of* Robotics Research	5	
Robotics and Autonomous Systems*	2	
Robotics and Computer Integrated Manufacturing	4	
Robotics Today	2	
Robotics World	4	
Scientific American*	5	
Signal*	5	

TITLE	RETENTION (years)
SIMULATION*	2
Spang Robinson Report	2
Sun Expert	2
Sun Observer	1
Sun Technology	2
TEC, Training Electronics & C41 (formerly Advanced Military Computing)	2
Telematics and Informatics	2
Training Systems Reports	2
Unix Review	2
UnixWorld Magazine	2
Usenix	2
Usenix Association Newsletter ('login')	2